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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 19

Application Number: 09/401,221
Filing Date: September 22, 1999
Appellant(s): ATES, GORKEM I.

GORKEM I. ATES
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 05 March 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-6 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5774660	BRENDEL et al.	6-1998
6108703	LEIGHTON et al.	8-2000

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-6 are rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 15.

DETAILED ACTION

1. This Action is in response to the communication received on 03 July 2003.

2. Claims 1-6 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brendel** et al. patent no. **5,774,660** in view of **Leighton** et al. patent no. **6,108,703.**

5. As to claim 4, Brendel discloses a method for using an Internet system, comprising the steps of:

a) making a request for information, over the Internet, by a client, to the a main server *(Fig. 8, server 56)* of the Internet system and not to the said at least one participant server *(Fig. 8, server 51, 52) (Brendel, the load balancer waits for a URL request from the client once the load balancer has made the connection with the client, (col. 6, lines 65-67))*;

b) examining an IP address of the client, by said main server (the load balancer receives the URL request from the client and decodes the URL request to determine the requested resource, *(Brendel, col. 6, line 63 – col. 7, line 30))*;

c) seeking at least one participant server of the Internet system, by said main server, so as to form an at least one nearest participant server *(Brendel, the assigned node is selected based on a location of the requested resource determined from the URL request, (Brendel, col. 6, line 63 – col. 7, line 30))*;

d) requesting over the Internet, by said main server acting like an orchestra leader, that said at least one nearest participant server sent the requested information (the resource) to the client, packet-to-packet, over the Internet *(Brendel, the load balancer chooses an assigned node based on the resources contained by each network nodes. The assigned node reads the requested resource and transmits it to the client, (Brendel, col. 6, line 20 – col. 7, line 30))*;

e) determining if said at least one nearest participant server has the requested information *(Brendel, the load balancer determines an assigned server in plurality of network nodes to respond to a request from the client contained in an incoming data packet, (Brendel, col. 6, line 20 – col. 7, line 30))*;

f) labeling, by said at least one nearest participant server, each packet with an IP address of said main server, which enables the client which has a port only for main server addresses to accept said packets, if answer to step e) is YES *(Brendel, the packets received from the client are TCP/IP packets having a destination IP address which is a virtual IP address of the load balancer, (Brendel, col. 6, line 20 – col. 7, line 30); and Brendel also discloses that the balancer network node is in the plurality of network nodes containing web servers. The web site is addressable by one network address for all web servers in plurality of network nodes containing web servers, (Brendel, col. 6, lines 20-52))*;

g) sending the requested information with said IP address of said main server, by said at least one nearest participant server, to the client, over the Internet *(Brendel, col. 6, line 63 – col. 7, line 30)*; However, Brendel does not teach explicitly downloading the requested information from said main server to said at least one nearest participant server, which will distribute the load of sad main server to said at least one participant server when lacking multicasting so as to save costs, by virtual of said at least one participant server being relatively easy and inexpensive to add as compared to clustering more servers to said mains server, if answer to STEP e) is NO. Thus, the artisan would have been motivated to look to the related networking art for potential system for implementing the downloading the requested information from said main server to said at least one nearest participant server, which will distribute the load of said main server to said at least one participant server when lacking multicasting so as to save costs, by virtual of said at least one participant server being relatively easy

and inexpensive to add as compared to clustering more servers to said mains server, if answer to STEP e) is NO. Brendel suggests that the load balancer should be used not only performing the balancing of the content distribution but also minimizing internet traffic (*servers in the web farm may be geographically remote, where some of the servers are located in one city while other servers are located in other cities. Load balancing may be performed not just based on content, but also geographically to minimize traffic on the network backbone (Brendel, col. 20, lines 35-47)).*

In the same field of endeavor, Leighton, related Global Hosting System, discloses in an analogous art (e.g., content distribution), *Leighton discloses that the inventive framework allows a Content Provider to replicate its most popular content at an unlimited number of points throughout the world. The actual content that is replicated at any one geographic location is specifically tailored to viewers in that location. Content is automatically sent to the location where it is requested, without any effort or overhead on the part of a Content Provider. A base HTML document portion of a Web page is served from the Content Provider's site while one or more embedded objects for the page are served from the hosting servers, preferably, those hosting servers nearest the client machine (col. 2, line 25 – col. 4, line 22). Leighton also discloses that global hosting according to the present invention also allows an ISP to control how and where content transverses its network. Global hosting servers can be set up at the edges of the ISP's network (at the many network exchange and access points, for example). This enables the ISP to serve content for sites that it hosts directly into the network exchange points and access points. Expensive backbone links no longer have to carry*

redundant traffic from the content provider's site to the network exchange and access points. Instead, the content is served directly out of the ISP's network, freeing valuable network resources for other traffic (Leighton, col. 13, lines 35-61).

Accordingly, it would have been obvious to one of ordinary skill in the Data networking art at the time of the invention was made to have incorporated the teachings of Brendel with Leighton's teachings, for the purpose of *allowing the hosting scheme to be far more efficient than schemes that cache everything everywhere, or that cache objects only in pre-specified locations (Leighton, col. 3, lines 42-57) and unlimited cost effective scalability (Leighton, col. 14, line 62 – col. 15, line 13). Leighton also suggests that content is automatically replicated to the global server network in an intelligent and efficient fashion. Content is replicated in only those locations where it is needed (Leighton, col. 14, lines 25-49). Leighton also suggests that improving the Web site performance and avoiding the expensive backbone links to carry redundant traffic from the Content Provider's Web site to the network exchange and access points (Leighton, col. 13, line 62 – col. 14, line 49).*

i) returning to step f).

6. As to claim 5, Brendel-Leighton discloses wherein said step of making a request for information, over the Internet, by the client, from the main server includes making the request for at least one of a streaming video and audio, over the Internet, by the client, from the main server *(Brendel, col. 8, lines 63-67; col. 9, lines 1-16))*.

7. As to claim 6, Brendel-Leighton discloses wherein said step of seeking the nearest at lest one participant server, by said main server, so as to form an at least one

nearest participant server includes seeking the nearest at least one nearest participant server, by said main server, so as to form said at least one nearest participant server that has the most bandwidth and CPU and other serving requirements needed to furnish the requested information to the client *(Brendel, Fig. 7, the load balancer 54 keeps track of which requests are being processed by each server in server farm 50, and attempts to balance the load of requests among the servers, col. 9, lines 30-32); Fig. 8, the load balancer 70 determines that only server 52 and not servers 56, 51 can handle the request, col. 10, lines 54-59). Leighton also discloses in Fig. 3 that when the HTML request fir the page is received, the based HTML document is served by the Web site and some portion of the page's embedded objects are served from the hosting servers near (although not necessarily the closest) to the client machine that initiates the request (Leighton, col. 3, lines 66 – col. 4, line 22).*

8. As to claim 1, Brendel-Leighton discloses an Internet system, comprising:

a main server *(Brendel, Fig. 7; server 54; Figs. 8, 19, server 56; Leighton, Fig. 3, item 44, network access point)* for storing information to be requested over the Internet *(Brendel, Figs. 8, 19, Internet cloud 66)* by a client *(Brendel, Figs. 8, 19, Client browser 10; Leighton, Figs. 1, 3, client 10)* so as to form a request for information and having an IP address *(Brendel, Figs. 7, 8, IP=230.101.17.200)*; and

at least one participant server having an IP address *(Brendel, Fig. 7, server 52 having IP= 230.101.17.102; Figs. 8, 19, server 52 having IP = 230.101.17.102)* and electrically communicating with said main server; said at least one participant server not receiving the request for information from the client, but rather

said main server receiving the request for information over the Internet from the client and requesting over the Internet that said at least one participant sever send the requested information over the Internet back to the client *(the load balancer determines an assigned server in the plurality of network nodes to respond to the request from the client contained in an incoming data packet. The load balancer transfers a connection to the client to the assigned server. The assigned node reads the requested resource and transmits the requested resource to the client (col. 6, line 20-col. 7, line 30); the assigned servers can also be located remotely from the load balancer, such as over a WAN using this technique (Brendel, col. 9, lines 52-64; col. 10, lines 28-52; col. 11, lines 64-67; col. 12, lines 1-5; col. 17, lines 5-8; col. 20, lines 35-63); and servers in the web farm may be geographically remote, where some of the servers are located in one city while other servers are located in other cities. Load balancing may be performed not just based on content, but also geographically to minimize traffic on the network backbone (Brendel, col. 20, lines 35-47))*, and if said at least one participant server does not have the requested information, the requested information is downloaded from said main server to said at least one participant server *(Leighton, Leighton discloses that the inventive framework allows a Content Provider to replicate its most popular content at an unlimited number of points throughout the world. The actual content that is replicated at any one geographic location is specifically tailored to viewers in that location. Content is automatically sent to the location where it is requested, without any effort or overhead on the part of a Content Provider. A base HTML document portion of a Web page is served from the Content Provider's site while one or more embedded objects for the*

page are served from the hosting servers, preferably, those hosting servers nearest the client machine (Leighton, col. 2, line 25 – col. 4, line 22). Leighton also discloses that global hosting according to the present invention also allows an ISP to control how and where content transverses its network. Global hosting servers can be set up at the edges if the ISP's network (at the many network exchange and access points, for example). This enables the ISP to server content for sites that it hosts directly into the network exchange points and access points. Expensive backbone links no longer have to carry redundant traffic from the content provider's site to the network exchange and access points. Instead, the content is served directly out of the ISP's network, freeing valuable network resources for other traffic (Leighton, col. 13, lines 35-61), and when said at least one participant server sends the requested information over the Internet back to the client, said at least one participant server assigns to the requested information said IP address of said main server and not said IP address of said at least one participant server *(Brendel, the packets received from the client are TCP/IP packets having a destination IP address which is a virtual IP address of the load balancer, (Brendel, col. 6, line 20 – col. 7, line 30); and Brendel also discloses that the balancer network node is in the plurality of network nodes containing web servers. The web site is addressable by one network address for all web servers in plurality of network nodes containing web servers, (Brendel, col. 6, lines 20-52))*.

9. As to claim 2, Brendel-Leighton discloses, wherein said main server is a TCP/IP server and assigns jobs to said at least one participant server dynamically without relocating the client using neither HTTP nor HTML commands so as to take relocating

process away from top networking OSI layers to 3rd level of Internet working OSI that is IP so as to enable starting downloading of the requested information from one of said at least one participant servers and finishing the downloading from another of said at least one participant server without ever noticing server alternation by virtue of said at least one participant server assigning to the requested information said IP address of said main server and not said IP address of said at least one participant server *(Brendel, col. 6, line 20 - col. 7, line 30; col. 9, line 17 – col. 10, line 52)*.

As to claim 3, Brendel-Leighton discloses, wherein said top networking OSI is at least one of TCP, HTTP, and application level *(Brendel, Figs. 12, 13, 17)*.

(11) Response to Argument

The Appellant argued in substance that:

Issue 1: Whether claims 1-6 are unpatentable under 35 USC 103(a) over **Brendel** et al. US patent no. **5,774,660** in view of **Leighton** et al. US patent no. **6,108,703**.

This issue has 3 components that must be addressed separately as follows:

a. There is no motivating suggestions to combine the prior art to establish prima facie obviousness.

b. The prior art do not disclose "... said main server ...requesting over the Internet that said at least one participant server send the requested information over the Internet back to the client..."[claim 1] and "requesting over the Internet, by said main

server acting like an orchestra leader, that said at least one nearest participant server send the requested information over the Internet back to the client..." [claim 4].

Issue 1: a. There is no motivating suggestions to combine the prior art to establish prima facie obviousness?

It is the Examiner's position to find any motivating suggestion or combination in the applied references.

In the Appellant's brief, page 10, lines 34-37, Appellant argues that "Neither Brendel et al., Leighton et al. nor for that matter any of the references make any motivating suggestion". According to MPEP 2143, "Basic Requirements of a Prima Facie Case of Obviousness", "To establish a prima facie of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.". In the last Office Action (paper # 15), the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) And *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this instant application, *the Examiner found the motivation or suggestion to combine the references in the references themselves*. Brendel suggests that the load balancer should be used not only performing the balancing of the content distribution but also minimizing internet traffic (*servers in the web farm may be geographically remote, where some of the servers are located in one city while other servers are located in other cities. Load balancing may be performed not just based on content, but also geographically to minimize traffic on the network backbone (Brendel, col. 20, lines 35-47)).* Accordingly it would have been obvious to one of ordinary skill in the Data networking art at the time of the invention was made to have incorporated the teachings of Brendel with Leighton's teachings, for the purpose of *allowing the hosting scheme to be far more efficient than schemes that cache everything everywhere, or that cache objects only in pre-specified locations (Leighton, col. 3, lines 42-57) and unlimited cost effective scalability (Leighton, col. 14, line 62 – col. 15, line 13). Leighton also suggests that content is automatically replicated to the global server network (the Internet) in an intelligent and efficient fashion. Content is replicated in only those locations where it is needed (Leighton, col. 14, lines 25-49). Leighton also suggests that improving the Web site performance and avoiding the expensive backbone links to carry redundant traffic from the Content Provider's Web site to the network exchange and access points (Leighton, col. 13, line 62 – col. 14, line 49).*

Issue 1: b. The prior art do not disclose "... said main server ...requesting over the Internet that said at least one participant server send the requested information over the Internet back to the client..."[claim 1] and "requesting over the Internet, by said main server acting like an orchestra leader, that said at least one nearest participant server send the requested information over the Internet back to the client..." [claim 4]? (Appellant's Brief, pages 25 and 31).

The examiner has already shown and replied in the last Office Action (paper #15). Appellant's only argument is "a WAN is not equivalent to the Internet" (Appellant's Brief, pages 25-26). The Internet and the Wide Area Network (WAN) are types of communication medium used. Therefore, the communication medium used (the Internet or the WAN) is relevant to execute the functionalities of the limitations of the claimed invention.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner
Art Unit 2142 HN

HAI V. NGUYEN
March 19, 2004

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